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COMMERCIAL FERTILIZERS

Report for 1970

J. GORDON HANNA



William Glowa makes nitrogen determination.


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REPORT ON INSPECTION AND ANALYSIS OF
COMMERCIAL FERTILIZERS

1970

J. Gordon Hanna, Chief Chemist

Listed in this report for 1970 are the manufacturer's names, the number of samples of the products of each manufacturer collected, the number of these samples found deficient and the ratios of the percentages of nitrogen, phosphoric acid, potash, secondary and minor elements found to the percentages guaranteed. Results of 710 samples of fertilizer produced by 107 manufacturers are summarized. A table of the tonnage sold during the period between July 1, 1969 and June 30, 1970 is included.

Analyses were made by Messrs. R. A. Botsford, S. P. Squires, W. Glowa, R. E. West, Miss H. Kocaba and Mrs. J. A. Pierson. Inspection and sampling were by Mr. R. R. Nichols.

Cover photo by Raymond E. West.

COMPLIANCE OF 1970 FERTILIZER SAMPLES WITH GUARANTEES

Manufacturer	No. of Samples	No. of guarantees			Samples deficient		Average % of claims		
		N	P ₂ O ₅ +K ₂ O total	N	P ₂ O ₅ +K ₂ O	N	P ₂ O ₅ +K ₂ O	N	P ₂ O ₅ +K ₂ O
Adams-Brainard, Inc.	1	1	2	3	0	0	117.6	134.0	
Agrico Chemical Co.	71	63	132	195	14	18	101.6	105.6	
Agricultural Products Co., Inc.	9	9	18	27	0	0	112.1	112.4	
Agricultural Supply Co.	2	2	4	6	0	0	104.0	125.5	
Agway, Inc.	43	40	74	114	1	11	109.7	108.1	
The American Agricultural Chemical Co.	1	0	1	1	-	0	---	108.3	
American Cyanamid Co.	5	5	0	5	0	-	101.1	---	
American Fertilizer Co.	4	4	8	12	0	0	102.5	126.3	
Armour Agricultural Chemicals Co.	5	5	10	15	0	1	104.7	107.4	
Asgrow - Mandeville Co.	7	7	14	21	0	0	102.8	110.9	
Atlas Fish Fertilizer Co.	3	3	5	8	0	0	105.6	137.1	
H. J. Baker & Bros., Inc.	1	0	0	0	-	-	---	---	
Baker Castor Oil Co.	1	0	0	0	-	-	---	---	
The Bartlett Tree Expert Co.	1	1	2	3	0	0	114.0	97.8	
Black Magic, Inc.	2	2	4	6	0	0	103.0	120.1	
Bonide Chemical Co. Inc.	1	1	2	3	0	0	107.2	100.3	
Boyle-Midway, Inc.	4	4	6	10	0	0	104.6	104.0	
Bristol Nurseries, Inc.	2	2	4	6	0	2	127.6	91.2	
Brookside Nurseries, Inc.	6	5	7	12	0	0	108.3	126.0	
Cadwell & Jones, Inc.	10	10	20	30	1	3	107.0	114.9	
H D Campbell Co.	1	1	0	1	0	-	100.0	---	
Canadian Industries Ltd.	1	1	0	1	0	-	100.0	---	
Peter Cascio Nursery, Inc.	7	7	14	1	1	1	102.1	104.9	
Central Farmers Fertilizer Co.	1	0	1	1	-	0	---	103.0	

Chevron Chemical Co.	8	8	14	22	0	0	110.3	117.1
Chilean Nitrate Sales Corp.	2	2	0	2	0	-	101.0	---
Clinton Nursery Products, Inc.	2	2	4	6	0	0	106.6	103.1
Corenco Corp.	71	57	124	181	4	10	110.2	108.8
Country Squire Fertilizers	7	7	14	21	0	0	105.5	108.4
The Danbury Garden Center	2	2	4	6	1	0	93.0	106.5
The Davey Tree Expert Co.	3	3	6	9	0	0	103.8	137.4
Doggett-Fison Co.	1	1	2	3	0	0	104.8	115.8
E. I. duPont de Nemours & Co.	1	1	0	1	0	-	100.8	---
Eastman Gelatine Corp.	1	0	1	1	-	0	---	1104.5
Elanco Products Co.	10	10	20	30	0	1	105.8	107.3
The Espoma Co.	8	8	16	24	0	0	124.6	120.5
Leon Ezzell, Inc.	1	1	2	3	0	0	108.4	110.9
Faesy & Besthoff, Inc.	15	13	24	37	0	1	122.8	133.6
Federal Chemical Co.	15	15	30	45	2	5	106.2	102.6
The Fer - Mel Corp.	7	7	13	20	0	2	103.3	105.8
Free Flow Fertilizer Co.	4	4	8	12	0	0	111.9	128.9
The Garden Exchange Inc. of Trumbull	1	1	2	3	0	0	96.8	107.5
Garden Products Co.	2	2	4	6	0	0	105.0	114.5
Glen Terrace Nurseries, Inc.	2	2	4	6	1	0	95.0	109.3
Godfrey's Garden Shop	2	2	4	6	0	0	96.4	106.3
Gold Star Distributors	1	1	2	3	0	0	136.0	117.5
W. R. Grace & Co.	1	0	1	1	-	1	---	85.5
Grand Union Co.	7	7	14	21	0	5	104.6	107.6
The Great Atlantic & Pacific Tea Co.	9	9	18	27	3	4	100.7	107.5
Greenlife Products Co., Inc.	7	7	14	21	1	2	100.2	98.0
Green Ribbon Product Co.	6	6	12	18	1	0	98.2	106.9
Gro-Fast Fertilizer Associates	3	3	6	9	0	0	101.2	100.7
Halstead Distributing Co.	2	2	4	6	0	1	114.0	105.3
The Charles C. Hart Seed Co.	6	6	12	18	0	0	115.6	115.1
Heritage House Products	2	2	4	6	0	1	107.7	109.7

Manufacturer	No. of Samples	No. of guarantees		Samples deficient		Average % of claims	
		N	P ₂ O ₅ +K ₂ O total	N	P ₂ O ₅ +K ₂ O	N	P ₂ O ₅ +K ₂ O
A. H. Hoffman, Inc.	5	5	9	14	1	101.6	128.3
The Hy-Trous Corp.	2	2	4	6	0	108.2	139.9
International Minerals & Chemical Corp.	5	0	5	5	-	---	100.9
Kerr McGee Chemical Corp.	69	57	114	171	9	105.8	107.5
E. J. Korvett	11	11	20	31	0	110.7	106.7
Lebanon Chemical Corp.	2	2	3	5	0	126.4	122.3
The Liberty Fertilizer Group	4	4	8	12	1	99.6	107.5
Limestone Products Corp.	1	1	2	3	0	108.0	97.5
Loft's Pedigreed Seed, Inc.	4	4	8	12	0	99.6	96.0
Luzerne Fertilizer Co.	5	5	10	15	1	99.3	109.3
McArle's Seed Co.	2	2	4	6	0	101.4	135.3
Miller Chemical & Fertilizer Co.	4	4	7	11	0	117.0	112.0
Nassau Garden, Inc.	7	7	14	21	1	119.9	114.1
Natural Plant Food Co., Inc.	2	2	4	6	0	114.0	91.9
Old Deerfield Fertilizer Co.	6	6	12	18	1	102.9	107.9
Old Fox Agricultural Sales, Inc.	31	29	61	90	3	108.2	111.1
Olin Corp.	2	2	2	4	0	102.7	102.5
Organic Compost Corp. of Penn.	7	7	14	21	0	173.9	190.5
Palmetto Oil Co.	1	0	0	0	-	---	---
Patco Products, Inc.	4	4	8	12	0	111.5	113.1
Pennsylvania Dutch Fertilizer Co.	10	10	20	30	0	115.2	108.6
Perk-Up Products Co.	5	5	10	15	1	97.6	94.7
Robert B. Peters Co., Inc.	1	1	2	3	0	113.2	107.4

Planters Peanuts	2	2	0	2	0	0	114.8	---
Frank S. Platt Co.	2	2	4	6	1	1	91.4	115.1
Frank Policastro & Sons, Inc.	1	1	2	3	1	0	86.4	105.0
Ra-Pid-Gro Corporation	1	1	2	3	0	0	101.4	102.9
Ross Daniels, Inc.	4	4	8	12	0	0	114.4	115.0
Schultz Co.	1	1	2	3	0	0	116.8	99.1
O. M. Scott & Sons Co.	17	17	32	49	0	0	103.6	108.7
Sears Roebuck & Co.	18	18	34	52	2	1	124.0	109.9
Sewerage Commission of Milwaukee	2	2	2	4	0	0	112.0	149.0
Sierra Chemical Co.	5	5	9	14	0	0	105.0	103.2
Smith Douglass Division	5	4	9	13	0	0	107.2	112.0
Southwest Potash Corp.	1	1	1	2	0	0	107.4	100.5
The Stadler Fertilizer Co.	1	1	2	3	0	0	104.8	102.7
Sterns Garden Products, Inc.	4	4	8	12	0	0	102.4	105.9
Stokle, Inc.	3	3	6	9	0	0	189.3	216.0
Swift Agricultural Chemicals	16	16	32	48	0	5	105.5	102.1
Swiss Farms, Inc.	5	5	10	15	0	0	108.1	113.7
Two Guys	7	7	14	21	1	1	106.2	100.3
Universal Chemical Co., Inc.	3	3	6	9	0	0	104.1	116.0
USS Agri-Chemical, Inc.	11	10	18	28	3	2	97.9	108.9
Vaughan's Seed Co.	2	2	4	6	1	0	93.0	115.4
Vigoro	1	1	2	3	1	1	85.8	101.2
Vittner's Garden Center, Inc.	1	1	2	3	0	0	105.2	108.3
Vornado, Inc.	3	3	6	9	0	0	177.3	194.7
Walker-Gordon Laboratory Co.	2	2	4	6	0	0	118.0	122.1
Western Auto Supply Co.	1	1	2	3	1	0	92.0	132.8
Andrew Wilson, Inc.	1	1	2	3	0	1	136.4	117.5
S. D. Woodruff & Sons, Inc.	1	1	2	3	0	0	119.2	104.2
Zayre Corp.	1	1	2	3	1	0	96.0	107.0

SECONDARY AND MINOR ELEMENTS

	No. of Samples	Element guaranteed	No. of guarantees	Guarantees deficient	Ave. % of claim
Agrico Chemical Co.	7	Boron	4	0	556
		Magnesium	3	1	223
Agway, Inc.	9	Boron	8	0	155
		Magnesium	1	0	308
Asgrow-Mandeville Co.	1	Boron	1	1	61
		Calcium	1	1	67
		Copper	1	0	114
		Iron	1	0	100
		Magnesium	1	0	102
		Manganese	1	1	62
		Sulfur	1	0	227
Boyle-Midway, Inc.	1	Boron	1	0	79
Cadwell & Jones, Inc.	1	Magnesium	1	0	374
H. D. Campbell Co.	1	Calcium	1	1	40
		Magnesium	1	1	24
Chevron Chemical Co.	4	Copper	1	0	114
		Iron	3	3	50
		Sulfur	2	0	88
		Zinc	1	0	121
Chilean Nitrate Sales Corp.	2	Sodium	2	0	100
Corenco Corp.	1	Magnesium	1	0	89

Elanco Products Co.	1	Iron	1	0	640
Faesy & Besthoff, Inc.	1	Iron	1	0	100
Federal Chemical Co.	3	Iron Magnesium	1 2	0 0	386 155
International Minerals & Chemical Corp.	1	Magnesium Sulfur	1 1	0 0	110 102
Limestone Products Corp.	1	Calcium Iron Magnesium	1 1 1	0 0 0	106 100 220
Loft's Pedigreed Seed, Inc.	1	Iron	1	0	383
Nassau Garden, Inc.	3	Calcium Iron	1 2	0 0	150 107
Old Fox Agricultural Sales, Inc.	3	Magnesium	3	0	144
Patco Products, Inc.	1	Iron	1	0	100
Ross Daniels, Inc.	1	Iron	1	0	210
Sewerage Commission of Milwaukee	1	Iron	1	0	127
Swift Agricultural Chemicals	1	Iron	2	0	355

TONNAGES OF FERTILIZER MATERIALS AND MIXED
FERTILIZERS PURCHASED DURING THE PERIOD
OF JULY 1, 1969 - JUNE 30, 1970

	<u>Tonnage</u>
I. Chemical Nitrogen	
Ammonia anhydrous	2
Ammonium nitrate	298
Ammonium sulfate	19
Cyanamid	19
Calcium nitrate	12
Nitrate of soda	123
Nitrogen solutions	158
Urea	387
Urea-form	12
	<hr/> 1030
II. Organics	
Cottonseed meal	16
Dried manures	1551
Sewage sludge	58
Castor pomace	18
	<hr/> 1643
III. Phosphates	
Diammonium phosphate	3
Bonemeal	182
Superphosphate, 20%	1305
Superphosphate, 46%	524
	<hr/> 2014
IV. Potash	
Cotton hull ashes	30
Muriate of potash	2357
Nitrate of soda-potash	1
Sulfate of potash	1
Sulfate of potash-magnesia	22
Potassium nitrate	10
	<hr/> 2421
V. Secondary and micronutrients	
Borax	16
Copper sulfate	1
Magnesium sulfate	3
	<hr/> 20
VI. Mixed Fertilizers	
Commercial Mixtures	34,895
Special and home mixtures	2,332
	<hr/> 37,227
Total	44,355

MIXED FERTILIZER DISTRIBUTION
JULY 1, 1969 - JUNE 30, 1970

<u>Grade</u>	<u>Tons</u>	<u>Grade</u>	<u>Tons</u>
0-10-30	118	10-10-10	6572
0-15-30	639	10-20-10	357
5- 4-0	60	10-20-20	607
5-10-5	1013	12- 4-8	209
5-10-10	3094	15-10-10	3379
6- 3-6	1541	15-15-15	708
7- 7-7	51	16- 8-8	98
8- 6-4	245	20-10-5	92
8-10-10	2285	20-10-10	80
10-6-4	2953	Miscellaneous*	10,894
		Total	34,895

*Small amounts or reported by less than three manufacturers.

THE CONNECTICUT
AGRICULTURAL EXPERIMENT STATION
NEW HAVEN, CONNECTICUT 06504

James H. Garfield
Director

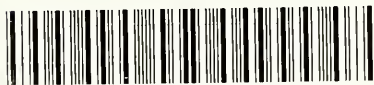
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